Folding & Design: introduction to a new journal

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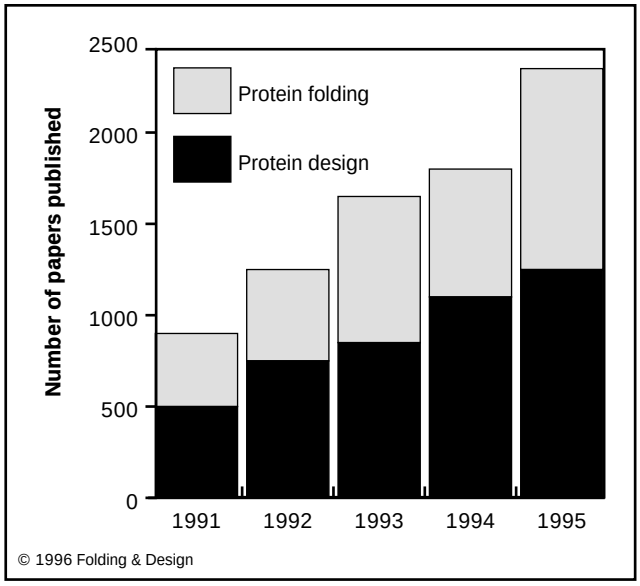
The field of folding and design of biomolecules is one of the most truly interdisciplinary areas of science. The remarkable developments in computing, electronics, X-ray crystallography and NMR, molecular and cell biology, and nucleic acid and protein chemistry have allowed us first to study structure and then to manipulate it. The interest in and importance of the work may be gauged from the increase in the number of publications containing the words 'protein' and 'folding' or 'protein' and 'design' between 1991 and 1995 (Fig. 1). These papers are spread over so many journals and so many disciplines that it is becoming increasingly difficult to follow the field. It is also increasingly difficult for editors of general journals to find referees of the necessary interdisciplinary skills to review manuscripts at an adequate level.

In order to address these problems, we have collaborated with Current Biology Ltd to produce a journal that will concentrate work from the underpinning disciplines of folding and design in one publication. *Folding & Design* is thus a journal devoted to the design and construction of proteins and RNA, their catalytic activities, and the analysis of protein and RNA folding. It will pull together the various threads underpinning protein design, from the theoretical and experimental analysis of protein folding pathways and stability *in vitro* and *in vivo* to the prediction of tertiary structure. Protein design may vary from the prediction and analysis of entirely novel folds to making small mutations to modify existing proteins for the purpose of testing predictions or modifying activities.

Folding & Design will, therefore, encompass such topics as rational design using methods of protein engineering and calculation; the counterpart of rational design by using methods of mutation and selection of stable folds, binding and catalytic activities; protein folding and secretion *in vivo* or in the presence of molecular chaperones; analysis of structure by biophysical techniques; and the design of novel or modified activities for use in biotechnology or medicine. Analogous studies on RNA and other biopolymers will also be encompassed.

Figure 1



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Rapid processing and publication of papers will be essential features of *Folding & Design*. We will make every effort to reach editorial decisions on papers, based on referees' reports, within four weeks of receipt and papers will be available on the Internet shortly after acceptance to allow rapid dissemination of results, ready availability, computer searching, and downloading of data. Both the London and the San Francisco offices of Current Biology Ltd are available to offer advice to anyone wishing to contribute to the new journal.

We would also like to thank Editorial board members for their help and advice. They greeted the creation of the new journal with such comments as "There is a need to present papers on folding and design side by side—this journal is the first to address that need" and "*Folding & Design* brings together several important disciplines at the right time in history." In summary, we are excited and enthusiastic about the future of this new journal.